

# 10Amps ATH10

Total Power: 55W  
 Input Voltages: 3.3V, 5V, 12V  
 No. of Outputs: Single



PRELIMINARY



## Special Features

- Point-of-Load Alliance product
- Open frame TH or SMT termination
- Auto-Track™ Sequencing
- Margin Up/Down Controls
- Remote sense compensation
- Output Voltage Adjust (Resistor Programming)
- Under Voltage Lockout
- Pre-Biased start-up<sup>2</sup>
- Output On/Off Inhibit
- -40°C to +85°C Ambient Air Operation
- Non Isolated module

## Environmental

Ambient air operating temperature range:  
 -40°C to +85°C

Storage temperature: -40°C to +125°C

Calculated MTBF: > TBA

## Safety

UL,cUL 60950 Recognition (Pending)

EN 60950 through TUV or VDE (Pending)

## Electrical Specs

### Input

Input Range 3.0 - 3.6V  
 4.5 - 5.5V  
 10.8 - 13.2V

Under Voltage Lockout with hysteresis

Efficiency up to 92%

### Output

Overall Regulation 1% of Vo Typ  
 Noise/Ripple 30mV Typ (2.5Vo and below)

1% Vo Typ (Vo > 2.5V)

Remote sense Up to 300mV max

Transient Response 100mV typical for 3.3Vo  
 for 50% to 100% I<sub>O,MAX</sub> step change  
 70us recovery time (Co = 330uF)

Over Current Protection 175% I<sub>O,MAX</sub> typical (autorecovery)

### Control

Inhibit On/Off Positive Enable Logic

Output Voltage Adjust See output range on page 2

Output Margin ±5% V<sub>O,NOM</sub>

Output Auto-Track™ (See Note 5)

Specifications subject to change without notice

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## Ordering Information

Input Voltage	Output Voltage	Output <sup>3</sup> Current	Efficiency <sup>4</sup>	Model Number
3.0V to 3.6V	0.8V to 2.5V	10A	92%	ATH10T033-9(S)(J)
4.5V to 5.5V	0.8V to 3.6V	10A	92%	ATH10T05-9(S)(J)
10.8V to 13.2V	1.2V to 5.5V	10A	92%	ATH10K12-9(S)(J)

OPTIONS:

- “-9J” - Output Trim, TH termination, Tray Packaging
- “-9SJ” - Output Trim, SMT termination, Tray Packaging
- “-9S” - Output Trim, SMT Termination, T&R packaging

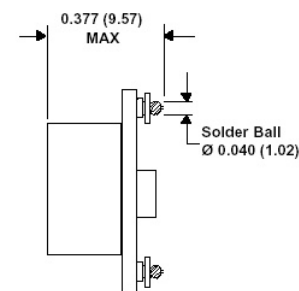
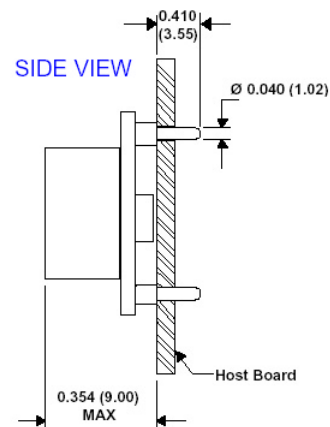
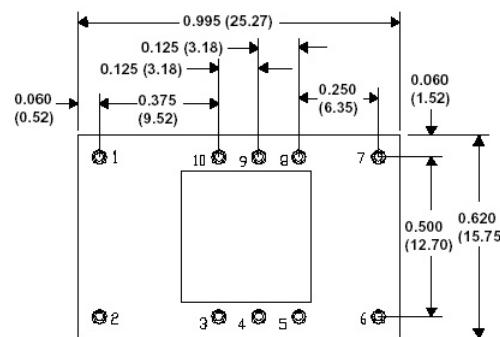
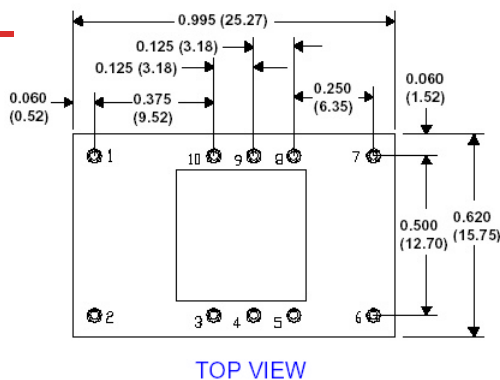
## Pin Assignments

### Single Output

	PINS
GND	: 1
Vin	: 2
Inhibit	: 3
Vo Adjust	: 4
Vo Sense	: 5
Vout	: 6
GND	: 7
Track	: 8
Margin Down	: 9
Margin Up	: 10

Notes:

- Nominal values apply with sense pins connected to +Vout and Ground Return with other control pins unconnected.
- Pre-Bias startup capability exists for 3.3Vin and 5Vin devices.
- Output derating applies at elevated ambient temperature.
- Typical efficiency taken at (TBA) load, 2.5V output (3.3Vin device); (TBA) load, 3.3V output (5Vin device); (TBA) load, 5V output (12Vin device).
- Consult the technical reference notes when available.
- Mechanical Dimensions are nominal values.
- Auto-Track™ is a trademark of Texas Instruments.
- Specification subject to change without notice.



Through-hole and SMT Outline [in (mm)]

\* This is a Preliminary Data Sheet. Astec reserves the right to make changes to the information contained herein without notice and assumes no liability as a result of its use or application. (REV02: SEP 24, 2003)